

**Response under 37 C.F.R. 1.116
- Expedited Examining Procedure -
Examining Group 1752**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Paul L. Zengerle, et al

METHOD OF PREPARATION OF
DIRECT DISPERSIONS OF
PHOTOGRAPHICALLY USEFUL
CHEMICALS

Serial No. 10/692,535

Filed 24 October 2003

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Group Art Unit: 1752

Examiner: Amanda C. Walke

Sir:

Pre-Appeal Brief Request for Review

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. The review is requested based on the following Arguments.

Arguments

Claims 1-36 are finally rejected under “new” grounds of rejection as being unpatentable under 35 U.S.C. 103 as over Lobo et al (5,589,322) or Connelly et al (5,998,120). This “new” ground of rejection represents further clear error for essentially the same reasons asserted with respect to the previous rejections under 35 U.S.C. 102(b) as being anticipated by Connelly et al (5,998,120) or Saito et al (6,220,925) (addressed in the first Pre-Appeal Brief Request for Review in this application mailed December 14, 2005), and under 35 U.S.C. 103 as obvious over Saito et al (previous “new” ground of rejection asserted after the Panel Decision to re-open prosecution in response to the first Pre-Appeal Brief Request for Review), as further addressed below.

The present invention describes an improved method for making direct dispersions of photographic useful materials (PUMs) for incorporation into silver halide photographic elements. In particular, the present invention teaches the use of a relatively low level (i.e., weight ratio relative to the amount of PUMs does not exceed 0.25) of specified organic solvents (i.e., those having a boiling point of at least 150C, a molecular weight less than or equal to 300, and a solvatochromic parameter β value greater than or equal to 0.50) specifically in a direct dispersion making process. As employed in the photographic art, “direct” dispersion making process are distinguished from other dispersion making processes by the feature that the PUM is homogenized or dispersed into an aqueous solution in the substantial absence of any auxiliary solvent (see, e.g., page 2, lines 19-21). As discussed in the paragraph bridging pages 9-10 of the specification, while the use of such specified solvents having relatively low molecular weight and relatively high solvatochromic parameter values has been typically avoided as such solvents may result in deleterious effects in photographic performance or physical quality, the use of such solvents at relatively low levels as claimed has been surprisingly found to enable the preparation of low-cost, high-yield, environmentally friendly direct dispersions for photographic materials which provide improved manufacturing efficiencies without causing such deleterious effects. As demonstrated in the examples, the specific solvents required in accordance with the claimed invention have been found to be particularly advantaged over other organic solvents for their ability to reduce to oil phase solution at temperatures used in the direct dispersion process. In particular, with the enhanced solubility characteristics that they provide, a much wider variety of high melting PUM’s become amenable to the direct dispersion making process. They also enable direct dispersions to be prepared at reduced permanent solvent loads to facilitate thinner coated layers and reduced material (solvent and gelatin) laydowns, which lowers manufacturing cost. They also allow direct dispersion oil phases to be prepared at lower temperatures to avoid coupler decomposition problems, which may be commonly encountered with the direct process.

The Examiner’s statement that both Lobo et al and Connelly et al disclose a process for preparing a direct dispersion of a PUM where the compounds used “appear to be employed in amounts falling within the scope of the instant claim limitations (meeting the instantly claimed ratio)” represents clear error as

there is no support for such “apparent” teaching. In particular, the Examiner has failed to identify where in either reference there is an actual disclosure that would support such statement, such that either reference would teach or suggest the claimed combination of limitations of Applicants’ process for making a direct dispersion claim 1, resulting direct dispersion claim 35, and photographic element claim 36 comprising such a direct dispersion.

While Connelly teaches the use of various types of gelatins, photographically useful materials, and solvents in the preparation of a direct dispersion, and Lobo et al teaches the use of ionic polymers, photographically useful materials, and solvents in the preparation of a direct dispersion, there is no teaching or suggestion in either reference of the use of solvents meeting the requirements of the present invention specifically at the claimed solvent to photographically useful material weight ratio in a direct dispersion making process. While the lists of solvents at col. 5 of Connelly et al and column 6 of Lobo et al include a single example of a solvent meeting the specified properties required for the solvent employed in the present invention (i.e., N,N-Diethyldodecanamide), the others do not, and there is further no teaching or suggestion in either reference to employ such single solvent in accordance with the further requirements of the present claimed invention. In particular, it is noted that only dibutyl phthalate is employed in the examples of Lobo et al, and only di-butyl phthalate and di-undecyl phthalate are employed as high-boiling solvents in the examples of Connelly et al, which solvents do not meet the requirements of the present claimed invention. Further, the solvent to photographically useful material weight ratios in dispersions prepared in all the Examples of the Connelly et al and Lobo et al are well above the present claimed requirement. As there is further no specific teaching to employ any other specific solvents at necessarily lower weight ratios so as to be a teaching or suggestion of the present claimed invention, Connelly et al and Lobo et al clearly do not establish a prima facie case of obviousness with respect to the present claimed invention, and the asserted final rejection is in clear error.

Further, while a prima facie case of obviousness has clearly not been established based on the Examiner’s bare unsupported statement as to what Connelly et al and Lobo et al “appear” to disclose, it is additionally clear that Connelly et al and Lobo et al are directed towards solving different problems than that of the present invention, and that there is accordingly no further teaching or

suggestion that would lead one skilled in the art to the present invention. For both references, e.g., there is no mention of the desire to minimize any particular solvent levels relative to PUM levels with direct dispersions, and no teaching of any combination of solvent parameters that would facilitate solvent minimization in direct dispersions. Clearly, in addition to not disclosing what the Examiner alleges “appears” to be disclosed, such references do not include any other further teachings that would establish any prima facie case of obviousness with respect to the present claimed invention, and allowance of the present claims over such references is respectfully urged.

In addition to the substance of the current “final” rejection being in clear error for the reasons set forth above, the Examiner’s piece-meal examination (as evidenced by an initial “final” anticipation rejection over Connelly et al or Saito et al being followed by a rejection as being obvious over Saito et al, being subsequently followed by a new “final” rejection as being obvious over the previously dropped Connelly et al reference) is also clearly improper. This is especially evident as obviousness over each of these previously applied references was addressed by Applicants even in response to the initial “final” anticipation rejections, and as the newly applied Lobo et al reference was itself already of record prior to even the initial rejection, and clearly does not add anything more pertinent to that already addressed with respect to Connelly et al. It is respectfully requested that the Examiner be instructed to acknowledge the shortcomings of the prior art relative to the present claimed invention, and that the application be promptly passed to issuance.

The final rejection thus clearly is in error for at least the reasons asserted above, and a prompt and favorable action in response to this request is earnestly solicited.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.